INFORMATION AND ECOLOGICAL BEHAVIOUR TOWARDS THE NATURAL RESOURCES CONSUMPTION OF THE POPULATION OF BUCHAREST

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Abstract
Over the last decades, the consumer's ecological behaviour has been the topic of intense debates, academic activities and researches. The scope of our article is to briefly highlight the importance of concrete actions aimed at informing and getting awareness of the environmental aspect in the consumption of natural resources, and also analyze the results of a research regarding the adult population perception of the methods developing ecological behaviour in consuming natural resources. A set of three hypotheses has been tested during the research using primary information obtained through a questionnaire-based survey. The information has been processed using SPSS software. The results of our research outline the facts that the population of Bucharest is selective when choosing the information channels, that there is a low correlation between the civic expression and the individual behaviour due to an early development of the non-government organizations, the reduced civic involvement and the adverse accommodation of messages to target groups. Those who are interested in informing and developing the consumers' ecological behaviour would rather need the support of fellow citizens than of the institutions authorized to promote such a message.

Keywords: ecological behaviour, consumer, natural resources, environment, information, Bucharest, concern

JEL Classification: JEL: D12, P46, L68, Q57

Introduction

Over the last decades, the ecological education has become a major topic both for the education system and the mass-media, political community, civil society and companies. Out of the multitude of necessary activities to educate the population, a core must be defined around which all these actions gravitate. This could be focused on social responsibility campaigns. The launch of the *Fair Trade* concept had a major impact in Western countries, where corporate social responsibility campaigns are focused mainly on population education for the environment and preservation of natural resources.

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Under this concept, the final customer chooses the payment of a higher price for a product, knowing however that what he paid extra would be found into an equitable amount that would reach the producer. The ecological feature of this concept results from the fact that the obtained income is used to improve general living conditions (access to running water, sewage and health care). At the same time, the concept of "Fair Trade" supports the existence and development of a fair and environmentally sustainable trade, meaning that the obtained revenues are supporting ecological production and are using in the most efficient way the production factors saving as many natural resources as possible. The role of social responsibility is to educate people to become fully engaged players in changing the society they live in. Helping people in becoming more socially responsible is a key objective of the present education system (Giancalone and Thompson, 2006).

A sustainable behaviour of consumption is the key element of a long term development. As far as this aspect is concerned, Scholl, Rubik and others (2010) have identified successful instruments used to reduce social and environment pressures which are being generated by consumption: information campaigns and different tax schemes.

In terms of consumer behaviour, from the perspective of reducing deforestation and preserving the mineral resources, we can state that the most appropriate approach referring to environment protection is the recovery of domestic and industrial waste and recycling the products resulting from cellulose processing by using spaces properly equipped.

Within the ecological education, it is essential that an active attitude should be imprinted with the population with the purpose of warning the population about disasters that may occur as a result of environmental pollution as well as the methods to prevent these disasters.

Soron's research (2010) points out the importance of consumption as a drive to create and sustain "a self identity". It is emphasised in the paper that various psycho-cultural factors contribute to stimulating demand for goods in search of people being affiliated or differentiated. Black and Cherrier (2010) look into the anti-consumerism practices, motivations and values of people that tend to lead a life style appropriate to a durable development of society.

Consumer's ecological behaviour is formed by attaining awareness regarding the importance of carrying out preventive actions of crisis situations and only accidentally managing such situations. Amongst many authors that pointed out the non-durable consumption model is Brodhag (2010) who is in favour of differentiated policies. He also underlines that policies should not be limited through a rational model but diversified. The author gives as reasons cultural and collective dimension of consumption, social role of ostentatious consumption, eco services outside formal markets and diverse approaches based on knowledge and rationality.

Society through its all formal authorities (local public authorities, government) as well as informal ones (non-government environmental organizations, political parties, television, citizens or community members) must form a system comprising education, information, knowledge dissemination and continuous action so that all segments of society should participate in this process. Now we find out that based on an attitude of ignoring the environmental reality, many people destroy or damage it instead of being part in these

campaigns. Our study demonstrates that lack of education in general, and lack of ecological education in particular lead to attitudes that favour the development of destructive behaviour. Within the Romanian society there are very few isolated actions focused on environmental preservation and almost no system policies can be found. Mass-media can play a decisive role in educating the consumer towards an ecological behaviour.

Excessive consumption of natural resources, together with the increase of world population reach considerable amounts and may lead to social and economic problems. The present day generation has been brought up to consume exaggeratedly and that is why exaggerated consumerism tendency has to be changed and a rational use of resources should be encouraged. People now have the obligation to design an economy based on the use of "green energy" and the achievement of a sustainable production and consumption. Population can and must get used to not dissipating resources and be aware of the need to recycle as part of an environmental protection factor. Marx, De Paula and Sum (2010) have researched consumers' perceptions towards the factors that stimulate or discourage sustainable consumption and have converted demand into packaging, products, ways of manufacturing, advertisements or recycling systems.

The responsibility of various social groups related to the action that should be taken represents a topic of great interest in the issue of environmental behaviour. Our analysis leads us to the observation that there is no clear delimitation of the areas of action of each participant in environmental education (non-governmental organizations, public local authorities, government/political parties and citizens).

Starting from the above issues, two interrelated questions arise for which we do not have a clear image regarding the behaviour of the Bucharest population in the direction of naural resources consumption or participating in awareness campaigns with the aim of promoting an ecological consumption of natural resources. They are:

- What is the Bucharest consumer's behaviour towards natural resources that grow scarce (water, fuel)?

- Which channels of information must be used to create ecological behaviour of Bucharest population regarding the consumption of natural resources?

In order to obtain answers to these questions the methodological approach was based on a sociological survey (Rotaru and Ilut, 2006).

The scope of our paper is to briefly highlight the importance of the ecological behaviour, population's information and involvement in the process of preserving the natural resources through a responsible consumption of these resources. Using primary data obtained from a survey based on a questionnaire, a set of three hypotheses has been tested during our research. The first part of our paper deals with the research methodology. The results are analyzed and assessed in the second part, which relate to the main questions addressed to the research subjects. Then the final conclusions follow.

1. Research methodology

The scope of our work is to determine the current level of ecological behaviour of the Bucharest consumers' of natural resources. This study has the following objectives:

O1. Measure ecological behaviour of Bucharest citizens towards reduction of resources consumption (water, wood, fuel, minerals);

O2. Identify the awareness level of the population on the need of protecting the environment through an ecological behaviour of the domestic consumer;

O3. Identify the involvement level of population in activities of preserving the environment through a civic attitude that favours the reuse of the products consumed;

O4. Responsibilities and institutional involvement in performing activities of awareness and promoting civic behaviour to preserve the environment.

Based on the above-mentioned objectives the authors formulated the following set of hypotheses:

- The more diverse the information channels on environmental protection and natural resources are, the more conspicuous is the population's ecological behaviour towards environmental protection and reuse of household products;
- The greater the participation of citizens in activities to protect the environment is, the higher the population's ecological behaviour to consume products;
- The more widespread the ecological behaviour of the Bucharest consumer is, the greater are the expectations from the organizations and institutions involved in developing such behaviour.

The study required a sociological survey on a representative sample composed of the adult residents of Bucharest (table no. 1). The volume of the sample was of 400 respondents aged 18 and over, the theoretical margin of error is +/- 5% at a confidence level of 95%. The sample was stratified proportionally to the number of adults from the administrative sectors of Bucharest.

Stages of the sampling process:

1. Setting population weight (as of January 2010) for each sector. Thus the number of questionnaires that had to be carried out in each sector was established;
2. Setting the number of sampling points for each sector. The practice polls determined an optimum of 10 questionnaires per sampling point. Thus, the number of questionnaires from a sector was divided by 10 and with the necessary rounding the result was the number of sampling points;
3. Random selection of the sampling points.

Table no. 1: Distribution by sectors of the questionnaires used within the research

Sectors	Population	% out of total population of Bucharest	Number of questionnaires
Sector 1	227,717	11.7	47
Sector 2	357,338	18.4	74
Sector 3	399,231	20.5	82
Sector 4	300,331	15.4	62
Sector 5	288,690	14.8	59
Sector 6	371,060	19.1	76
Total population of Bucharest	1,944,367	100.0	400

Selection of households within specific areas of the sampling points was random, using the "*random route*" method. The selection methodology we have employed ensures the compliance with the randomly minimal selection criteria of the respondents when other *sampling frames* (such as address lists) are of poor quality and/or inaccessible. The resulted sample (400 individuals) is representative for the adult population of Bucharest (total 1,667,898 adults according to official statistics from January 1st, 2010) on gender criteria and age groups.

Interviews were *face-to-face* type and were carried out *at the respondents' residence* by operators who are students of the Faculty of Business and Administration, University of Bucharest within the FP7 project no. SIS8-CT-2009-229642 - CASC - Cities and science communication: Innovative approaches to engaging the public - Coordinator BIRMINGHAM CITY COUNCIL. Data collection within the sociological survey was conducted between May 14th and 24th, 2010.

The questionnaire was developed by the authors and tested on a total of 20 subjects. The questions were completed following the pilot investigation and were structured according to the research hypotheses on 34 items. The data were entered into an electronic database and there were created syntax to label the variable and response codes.

2. Data processing and interpretation

Information obtained was processed using Statistical Package for Social Sciences software (SPSS) 12.0. The presented images and charts have been made in Microsoft Excel.

2.1 General data about the population of Bucharest

For a better understanding of the context of this research, we shall make a brief presentation of Bucharest. Bucharest was first mentioned as "the Citadel of Bucuresti" in 1459, September 20 when it became the residence of the Wallachian Prince Vlad III, the Impaler. Starting with the second half of the 17th century, it became the capital of Wallachia and in 1862 the capital of Romania.

Nowadays, Bucharest is the most important political, economic, cultural and scientific centre of the country and is divided into six administrative sectors. As of January 1, 2010 had 1,944,451 inhabitants, out of which 907, 678 men and 1, 036, 773 women, that is 46.7% males and 53.3% females (table no. 2).

Table no. 2: The administrative organisation of Bucharest

Sectors	Area square km	Population as of January 1, 2010	Men	Women	Population density inhabitants/ square km
Sector 1	70	224,146	100,724	123,422	3,202
Sector 2	32	356,679	165,415	191,264	11,146
Sector 3	34	401,975	188,372	213,603	11,823
Sector 4	34	300,101	140,731	159,370	8,827
Sector 5	30	289,778	139,150	150,628	9,659
Sector 6	38	371,772	173,286	198,486	9,783
Total	238	1,944,451	907,678	1,036,773	8,170

Bucharest's population represents 9.1% of Romania's total population and 16.5% of total urban population.

Also on January 1, 2010 the number of adults (people aged 18 and over) was 1,667,898.

In terms of ethnic composition, according to the 2002 census, Bucharest is relatively homogeneous: 97.03% of its inhabitants are ethnic Romanians, 1.42% is Roma and the remaining 1.55% belongs to other minorities (e.g. Hungarians, Germans, Turks, Jews, etc.).

In terms of schooling population we have a special situation in Bucharest. In Bucharest, school population on all levels of education (from pre-school to higher education) is of 689,771. In the university year 2007/2008 there were 35 universities with 169 faculties and a total of 389,517 enrolled students, out of which 218,782 women (56.2%). As a matter of fact, out of the total schooling population there were 56.5% University students, 20.2% pupils in elementary and gymnasium schools, 13.3% high school students, 6.9% pre-school children, 2.4% vocational and apprentice schools, and 0.7% in the after high school education and foremen schools.

2.2 Sources of information and development of ecologic behaviour

The first tested hypothesis is related to the correlation between the diversity of information sources and the attitude towards the environment and reuse of household products: the more diverse the information channels on environmental protection and natural resources are, the population's ecological behaviour towards consumption of natural resources is more active.

In specialty literature, the relationship between behaviour and attitude is clearly depicted. As far as attitude is concerned, it greatly depends on the information and knowledge that the individual receives (Boza,2010).

TV and Internet represent the preferred information channels used by the people of Bucharest who are interested in actions on environmental protection (table no. 3).

Table no. 3: Channels of environmental information

Information channel	Relative frequencies %
TV	61.0
Radio	5.0
Daily newspapers	6.7
Magazines	1.7
Specialized publications	3.0

Information channel	Relative frequencies %
Internet	15.8
Friends	1.0
Environmental organizations	2.3
Other channels	3.0
Do not know/Do not answer	0.5
Total	100.0

Regarding the environment issue, television remains the main information channel. Interestingly, one of six resident of Bucharest considers the Internet as the main information channel on environment. Specialized publications and information issued by environmental organizations are very important for 5% of adults from Bucharest. A correlation between the information channels and the respondents' age demonstrates that young people prefer to find out information on the Internet, through specialized publications; elderly people prefer top newspapers by circulation.

Within the communication about environment quality, TV shows and advertising materials have an increasingly larger dissemination. Thus, the survey measured the influence of direct or commercial advertisement information methods. Collected field data showed that more than 52.3% of the working age Bucharest people have seen billboards installed throughout the city displaying environmental and natural resources protection themes. TV shows dedicated to protecting the environment and natural resources have attracted the attention of 48% of the citizens of Bucharest, while the distribution of leaflets dealing with the same topic has been observed by 39.8% of the capital residents (table no. 4).

Who noticed these forms of advertisement? Flyers with information about the environment were mainly observed by women and those involved in environmental issues. TV shows on environment were watched especially by the elderly.

Table no. 4: Different information channels on environment and the need to preserve the environment

Questions	Yes (%)	No (%)
Have you seen billboards throughout the city advertising on environment and natural resources protection?	52.3	47.7
Have you read flyers about environmental and resource protection distributed / displayed at your block of flats entrance?	39.8	60.2
Have you watched TV shows dedicated to environment protection?	48.0	52.0

Those who watched TV shows on the environmental and natural resources protection were asked to indicate names of such shows and the TV channels that hosted them. The answers given indicated TV programs broadcast nationwide by TV stations. As for the TV channels where programs on environment were watched, 61% of people from Bucharest preferred generalist channels, 24% preferred specialized channels and 11% watched a news channel that began broadcasting a sustained campaign about environment and natural resources protection.

The attitude towards the environment and natural resources was measured as a set of statements about everyday facts from the behaviour of the citizen of Bucharest. On a scale from 1 to 10, when 1 means totally unjustified and 10 means totally justified, subjects were asked to express their agreement related to these statements.

The data collected show a generally favourable attitude towards the environmental messages (table no. 5).

Table no. 5: Behaviour of Bucharest population towards the reuse of household products

Gestures	Average score on the total sample	Average score on the sub-sample consisting of those who have seen billboards, fliers, TV shows	Average score on the sub-sample consisting of those who have seen billboard	Average score on the sub-sample consisting of those who have seen fliers	Average score on the sub-sample consisting of those who have seen TV shows
How justified do you think it is to throw papers in the street?	1.27	1.43	1.28	1.36	1.36
How justified do you think it is to throw papers near the trash bin?	1.51	1.74	1.58	1.66	1.60
How justified do you find the activity of selective garbage disposal?	8.63	8.28	8.93	8.62	8.68
How justified do you think it is the action of taking the used appliances to recycle stores?	8.79	8.56	8.95	8.77	8.87

One can notice that there is an unfavourable attitude towards throwing papers in the streets or near the trash bins. A generally positive attitude can be found around the actions of selective garbage disposal and storing the used appliances in specialized stores. Through social responsibility campaigns, big companies are engaged in the direction of encouraging the behaviour of recovering and recycling the household waste and appliances.

Basically, our hypothesis is not confirmed. One can observe that those who have noticed the billboards, have read the fliers and have watched TV shows dedicated to environment have lower scores in the measured statements than the average on the sample level. However one can notice that looking at billboards and watching TV shows about the environment lead to the development of a more positive attitude when coming to collect the appliances in a specialised recycle store. Billboards help the development of an attitude which favours the selective waste collection. The conclusion one can draw from the above observations is that the proper communication channel must be chosen for sending a message.

2.3 Civic participation and individual behaviour related to environment and natural resources preservation

A second tested hypothesis was related to the relationship of citizens' participation in environmental activities and the ecological behaviour of product consumption. The

greater the participation of citizens in activities to protect the environment, the higher the ecological behaviour of population towards the consumption of products.

An important aspect in enhancing the consumer's behaviour is represented by the population's general attitude towards environment. An environmental attitude is formed by giving a very important support for shaping and developing the consumer's ecological behaviour. On a scale from 1 to 10, when 1 means totally unjustified and 10 means totally justified, subjects were asked to express their agreement for a set of statements in regards to the formation of a civic environmental behaviour. On a declarative level, the adult population of Bucharest gives an average grade of 9.28 to activities of promoting and appreciating the protection of environment (table no. 6).

Table no. 6: Bucharest population's attitude towards actions of shaping a civic behaviour in relation to the environment

Questions	Average grade
How justified do you think it is to warn people that they are polluting the environment?	8.49
How justified do you find the appreciation of actions to protect the environment?	9.28
How justified do you find the active participation within environmental organizations?	8.17

It is interesting that the active participation in environmental organizations is appreciated but not at very high values. We believe that this fact is connected to the early days of these non-governmental organizations and their poor development. The same reasons are applicable when we warn people who pollute the environment. After a long period of communist society, characterized among others by ignoring the environment and environmental issues, we shifted to a different attitude, such as "there are institutions authorized to cleanse the environment so they should do it, not the citizens".

The specific involvement of the population in environmental actions and the development of an active ecological behaviour are important, in addition to the statements regarding the appreciation of the undertaken actions. Thus, the involvement level of the adult population of Bucharest can be depicted in three words: indifference, individual commitment and civic activism (table no. 7).

Table no. 7: Involvement level of people from Bucharest regarding environment and natural resources protection

Involvement level	Relative frequencies (%)
I am not interested in this subject	3.0
I keep informed on this matter but I am not particularly attentive to environmental issues	10.5
I get information and I am attentive to what those around me are doing on this matter	20.7
I am trying to protect the environment and save natural resources	31.8
I am protecting the environment and I am trying to determine others to be careful on this matter	20.8
I am protecting the environment and I sympathize with the environmentalist organizations	13.2
Total	100.0

The first group consists of people who are not interested, are not sensitive to this subject (almost 1 in 7 adult citizens of Bucharest) or are aware of what happens around them

(20%). 34.2%, about a third of the adult population of Bucharest is unconcerned by the environmental issues and this shows a still low level of awareness of the importance of environment in the daily lives of the residents of Romania's capital. We called this group "the disinterested" people to environmental issues.

The fact that nearly another third (31.8%) is trying to protect the environment and is saving natural resources shows the actual size of the silent and cold group of the individual consumer concerned with the environmental issue of the used products.

A third group (34%) is the one that tries individually or in an organised manner to develop an ecological behaviour.

Ecological behaviour of consumers of natural resources is seen in everyday life, in various activities. Subjects of the survey were asked how they act in everyday situations: the morning hygiene routine, use of artificial lighting at home and use of thermal power.

Whole sample data show a relatively low concern regarding ecological behaviour of consumers of natural resources. It is interesting that only in terms of room temperature and turning off the water while brushing teeth, those who declare themselves to be environmental activists have a more widespread ecological behaviour than the other groups. When talking about the use of natural lighting, eco-bulbs, bulbs with less power and water consumption when shaving / cleansing, those who act quietly and individually have the best behaviour regarding ecological consumption (table no. 8).

Table no. 8: Ecological behaviour of the domestic consumer related to daily activities in the household (%)

Activities	Sample level	Subsample of the indifferent people	Subsample of individual commitment	Subsample of the activists
Those who turn off the water while brushing their teeth	64.3	53.3	68.5	71.3
Those who turn off the water while shaving or cleansing	58.0	53.3	65.4	55.9
Those who rather use organic light bulbs than the conventional filament bulbs	58.5	51.8	66.1	58.1
Those who rather use moderate than high power light bulbs	67.8	64.2	71.7	67.6
Those who rather use the natural and not the artificial lighting when possible	86.5	79.6	93.7	86.8
Those who would use the natural and not the artificial lighting when possible	75.5	70.1	76.4	80.1

It is noted a classic behaviour of saving energy with a greater emphasis on using natural lighting (86,5%), moderate heating of the room (75,5%) and use of moderate power bulbs instead of high power ones (67.8%).

One year after shutting down the production line of the old electrical bulbs, the new types of eco-bulbs get a fairly small percentage of 58.5%. Although seen as one of the biggest problems of mankind - water - is still regarded as an inexhaustible resource. It may seem paradoxical but those who exhibit saving water behaviour are the elderly residents of

Bucharest and not the youth. From the correlation of concerns towards saving water, with the main demo-social features and with testing their correlation with "the residual adjusted value" results the fact that *water-saving* is more present among those who have been living for a long time in Bucharest, among those who are elderly, retired and consider themselves to be concerned with environmental issues. Less concerned with the preservation of water resources are those who have been living for a shorter time in Bucharest, they are young and have manual occupations.

About *saving energy* by using less power bulbs and ecological light bulbs we can say that there is a general behaviour, with no specific demo-social profile. Young people are less concerned about the use of moderate power light bulbs.

The inclination to *use natural lighting* is more present among women, the elderly, those who have been living in Bucharest for a long time. Men, young people and those who are generally indifferent towards environmental issues are less attentive to this natural resource.

Those with manual occupations and those with low income are the ones who are concerned about *thermal energy saving.*

The presentation of the demo-social profiles of the groups preoccupied with an ecological behaviour in the consumption of natural resources and household products is also relevant in terms of target groups for information campaigns on the subject. Answers to the question: "Who do you think these campaigns for protecting the environment and natural resources are mainly addressed to?" show a diffuse perception of the groups targeted by these information campaigns (table no. 9).

Table no. 9: Groups targeted – in the perception of the interviewed persons – of the campaign shaping ecological behaviour towards the environment and natural resources

Groups targeted of the campaign shaping ecological behaviour of the people from Bucharest	Relative frequency (%)
Children	2.3
Young people	14.5
Adults	6.5
Elderly	0.3
People concerned with the environment	5.0
People from Bucharest	37.5
All citizens of Romania	32.8
Do not know/Do not answer	1.1
Total	100.0

It is noted that 37.5% believe that these campaigns are addressed to people who live in Bucharest, 32.8% believe that these campaigns are addressed to all Romanian citizens and 15% to young people. Therefore we have generalist campaigns. It is odd that although less than 1% believes that these campaigns are addressed to older people, they are the most receptive ones to concrete actions of saving natural resources.

2.4 Individual and institutional involvement in developing an environmental oriented behaviour

The third tested hypothesis concerns the relationship between individuals and institutions involved in the development of an ecological behaviour among consumers of natural resources: the more disseminated the ecological behaviour of the consumer in Bucharest is, the greater the expectations from the organizations and institutions involved in its development.

Testing this hypothesis implies two interrogations in the first stage in order to better understand the individual-institution relationship:

- Who promotes the environmental protection activities?
- Who should promote the environmental protection activities?

Residents of Bucharest believe that the non-governmental organizations are conducting a more intense information campaign than expected from them - 68% compared to 30.2%. Residents of the capital expect a much greater involvement from the local and central public authorities (48%), and political decision making entities (12.8%). Environmental protection represents a problem of the city and therefore it is the responsibility of those who are authorised to solve the city's issues. It is an interesting fact that TV channels are perceived as players actively involved in environmental protection (15.8%) (table no. 10).

Table no. 10: Institutional involvement and expectations regarding the information campaigns of the population on environmental protection and natural resources

Institutions involved in environmental protection	Who carries out environmental protection activities?	Who should carry out environmental protection activities?
Non-governmental environmental organizations	68.0	30.2
Public local authorities	12.5	48.0
Government/Political parties	0.5	12.8
TV stations	15.8	0.0
Community/Citizens	2.0	6.0
Do not know/Do not answer	1.2	3.0
Total	100.0	100.0

In the population's view, the non-governmental organizations are much less responsible for the environmental protection activities. Majority public opinion is that these organizations do not have the necessary logistics and funds for such an endeavour.

Data resulted from the correlation of the involvement level and expectations regarding the promotion of environmental protection activities show that the more concerned with the environmental issues the citizens are, the more the expectations from government and central authorities decrease. The correlation points out that the expectations are higher from the part of other members of the community (table no. 11).

Table no. 11: The individual's level of involvement in issues regarding environmental and resource protection correlated with the institutions which should, according to the survey respondents, promote such actions

Level of involvement	NGO organizations	Public local authorities	Gov.	Com-munity/ Citizens	Dk/Do not answer	Total
I'm not interested in this area	25.0	33.3	0.0	0.0	41.7	100.0
I keep informed on this matter but I am not particularly attentive to environmental issue	26.2	52.4	16.7	2.4	2.3	100.0
I get information and I am attentive to what those around me are doing on this matter	32.5	48.2	10.8	4.8	3.7	100.0
I am trying to protect the environment and save natural resources	33.1	46.5	14.2	5.5	0.7	100.0
I am protecting the environment and I am trying to persuade others to be careful on this matter	24.1	53.0	15.7	6.0	1.2	100.0
I am protecting the environment and I sympathize with the environmentalist organizations	34.0	43.4	7.5	13.2	1.9	100.0
Total	30.3	48.0	12.8	6.0	3.0	100.0

We learn that the stated hypothesis is invalidated. Those concerned with environmental protection expect that others should also share their concerns. It is interesting the polarity of opinions between those who are insensitive and those who are trying to make others sensitive to the environmental issues. Both categories expect a greater involvement of the local and central public authorities. Non-governmental organizations concerned with environmental protection have support among environment proponents and also among those who do not declare themselves supporters but are paying attention to the discussions and practical methods of saving natural resources.

Conclusions

The ecological behaviour in consumption of natural resources has relatively small values compared to the countries in Western Europe. Information plays a fundamental role in forming an attitude favouring the development of an ecological behaviour of the consumer of natural resources.

The framed hypotheses are partly validated. Thus, the diversification of information sources is not important in the development of ecological behaviour but choosing the best ways of communicating about these issues.

The second hypothesis - the relationship between civic participation and individual behaviour towards environmental and natural resources preservation - indicates a poor agreement between the civic manifestation and the individual activities publicly expressed. The reason for that is the incipient stage of development of environmental organizations, the poor involvement of the residents of Bucharest and the deficient orientation of messages promoted in this direction.

The third hypothesis - the directly proportional relationship between the individual involvement and the involvement of public institutions in the development of an ecological behaviour is invalidated. Those concerned with environmental protection expect from their peers to share their concerns rather than from the institutions authorized to assume the role of formatter of ecological behaviour in the consumption of natural resources. It is interesting the polarity of opinions between those who are insensitive and those who are trying to sensitize the others making them aware of the environmental issues; both of them expect a greater involvement from the part of the local and central public authorities. Those who are individually involved in the direction of an ecological behaviour do not expect institutions to promote these challenges: a clean environment and ecological behaviour of the individual consumer. Non-governmental organizations concerned with environmental protection have active support among their proponents but also a passive support from those who do not declare themselves supporters but are paying attention to the discussions and practical methods of saving natural resources.

This research, limited by its purpose and the size of the community surveyed and studied, represents a starting point of studying the population's perception regarding ecological behaviour of the consumer of natural resources and products used within a household. The obtained results can be working hypotheses for the research on larger samples and the samples can be selected from cities in the country and abroad.

References

Black, I.R. and Cherrier, H., 2010. Anti-consumption as part of living a sustainable lifestyle: daily practices, contextual motivations and subjective values, *Journal of Consumer Behaviour*, [online] Available at: <http://dx.doi.org/10.1002/cb.337> [Accessed 15 September 2011].

Boschetti, F., de La Tour, A., Fulton, E.A. and Little, L.R., 2010. Interactive modelling for natural resource management. *Environmental Modelling & Software*, [e-journal] 25 (10), pp. 1075-1085. Available through: Science Direct database [Accessed 10 September 2011].

Boza, M., 2010. *Atitudinile sociale şi schimbarea lor*. Iaşi: Polirom.

Brătianu, C., Orzea, I. and Ghişe, I., 2010. Media knowledge consumers protection. *Amfiteatru Economic*, XII(28), pp 287-296.

Brodhag, C., 2010. A differentiated approach for sustainable consumption and production policies*, Natural Resources Forum*, [online] Available at: <http://dx.doi.org/10.1111/j.1477-8947.2010.01276.x> [Accessed 15 September 2011].

Brown , P., and Cameron, L., 2000. What can be done to reduce overconsumption?. *Ecological Economics*, [e-journal] 32 (1), pp 27-41. Available through: Science Direct database [Accessed 10 September 2011].

D'Alessandro, S., 2007. Non-linear dynamics of population and natural resources: The emergence of different patterns of development. *Ecological Economics*, [e-journal] 62

(3-4), pp. 473-481. Available through: Science Direct database [Accessed 10 September 2011].

Giancalone, R. A. and Thompson, K. R., 2006. Business Ethics and Social Responsibility Education: Shifting the Worldview. *Academy of Management Learning & Education*, 5 (3), pp. 266-277.

Goodman , D. and Goodman, M., 2001. Sustaining Foods: Organic Consumption and the Socio-Ecological Imaginary. In: M., J. Cohen and J. Murphy, eds. 2001. *Exploring Sustainable Consumption*. Pergamon: Oxford, pp. 97-119.

Jin, W., Xu, L. and Yang, Z., 2009. Modeling a policy making framework for urban sustainability: Incorporating system dynamics into the Ecological Footprint. *Ecological Economics*, [e-journal], 68(12), pp. 2938-2949. Available through: Science Direct database [Accessed 10 September 2011].

Marx, A. M., De Paula, I. C. and Sum, F., 2010. Sustainable consumption in Brazil: Identification of preliminary requirements to guide product development and the definition of public policies, *Natural Resources Forum Journal*, [online] Available at: <http://dx.doi.org/10.1111/j.1477-8947.2010.01293.x> [Accessed 15 September 2011].

Rotaru, P. and Iluț, P., 2006. *Ancheta sociologică şi sondajul de opinie. Teorie şi practica*. Iasi: Polirom.

Schilling, M. and Chiang, L., 2011. The effect of natural resources on a sustainable development policy: The approach of non-sustainable externalities. *Energy Policy*, [e-journal] 39 (2), pp 990-998. Available through: Science Direct database [Accessed 10 September 2011].

Scholl, G. et al., 2010. Policies to promote sustainable consumption: Innovative approaches in Europe, *Natural Resources Forum*, [online] Available at: <http://dx.doi.org/10.1111/j.1477-8947.2010.01294.x> [Accessed 15 September 2011].

Siche, J.R., Agostinho, F., Ortega, E. and Romeiro, A., 2008. Sustainability of nations by indices: Comparative study between environmental sustainability index, ecological footprint and the emergy performance indices. *Ecological Economics*, [e-journal] 66 (4), pp. 628-637. Available through: Science Direct database [Accessed 10 September 2011].

Soron, D., 2010. Sustainability, self-identity and the sociology of consumption. *Sustainable Development Journal*, [online] Available at: <http://dx.doi.org/10.1002/ sd.457> [Accessed 15 September 2011].

Spaargaren , G., 2011. Theories of practices: Agency, technology, and culture: Exploring the relevance of practice theories for the governance of sustainable consumption practices in the new world-order. *Global Environmental Change*, [e-journal] 21 (3), pp 813-822. Available through: Science Direct database [Accessed 10 September 2011].

Toma, S.G., Stanciu, C. and Irimia, E., 2010. Study on the information level of pupils and parents regarding the effects of unhealthy food consumption. *Amfiteatru Economic*, XII(28), pp. 420-435.